UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,586	02/22/2002	Tatsuo Yajima	219227US2 CONT	7302

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EXAMINER
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ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 February 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-12 were examined.

Section I: Response to Applicant's Arguments

Drawings

2.   Applicants are thanked for addressing this issue. Objection is withdrawn.

35 USC § 102

3.   Applicants are thanked for addressing this issue. Applicants'state Makiguchi fails

to teach or suggest calculated distances between perspective evaluation points on a

grid and determining a reference value among the distance values in evaluating the

dynamic perspective distortion of the transparent body by obtaining ratios of the

distance values in evaluating the dynamic perspective; summarily speaking, the

limitations reflect the presentation of these distance values. The Makiguchi reference

teaches, first of all, an optical distortion display (pg. 60, figure 20) properties based

upon graphs (pg. 60, figure 3) and mathematical equations (pg. 60, equation 1).

Naturally, a measured value which deviates from the normal or reference source

represents a dissimilar value, representative in the horizontal and vertical direction (pg.

60, left column, last paragraph; and right column, paragraphs 1-4). What better way to

graphically represent this information by creating a bar graph presentation reflective of

distortion values. Rejection stands.

Section II: Final Office Action (2nd Action)

Amended Claim Objection

4.   Amended claim 8, now reads, "The claim 7, wherein". Minor change requested.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by

Makiguchi et al.. Makiguchi et al. teaches a CAD simulation program which enabled

estimation of the optical distortion level using windshield shape data (abstract).

Claim 1. A method for evaluating dynamic perspective distortion a transparent body

(pg.48, left column, paragraphs 4 and 5), comprises the steps of: producing a model of

three-dimensionally (abstract: 3 sentence) curved shape of transparent body having

refractive index (inherent to the science of optics: Snell's Law); determining an eye point

at side of the model of three-dimensionally curved shape (pg.48, left column,

paragraphs 4 and 5 with table 1) and a virtual evaluation pattern having a plurality of

evaluation points at the other side of the model dimensionally curved shape (pg. 48-49,

section 2.1, with table 2); observing, from the eye point, three-dimensionally the virtual

evaluation pattern through the transparent body, (pg. 48-49, section 2.1, with table 2)

extracting perspective evaluation points as images evaluation points, obtained by

observing through the transparent body, a two-dimensional picture image obtained by

the observation, and obtaining distance values of adjacent perspective evaluation

points; determining an optional value be a reference value, among the distance values,

and evaluating the dynamic perspective (pg.48, left column, paragraphs 4 and 5 with

pgs 50-51, section 4.3 and 4.4) distortion of the transparent body by obtaining ratios

(pg. 53, table 3, visual sensitivity) of the distance values to the reference value.

Claim 2. The method of Claim 1, (pg.48, left column, paragraphs 4 and 5; pg. 48-49,

section 2.1, with table 2; pg.48, left column, paragraphs 4 and 5 with pgs 50-51, section

4.3 and 4.4) wherein: the dynamic perspective distortion the transparent body evaluated

based on the rate of change of the ratios (inherent: calculation is obtainable given the

data mentioned) of the distance values to the reference value.

Claim 3. The method of Claim 1, (pg.48, left column, paragraphs 4 and 5; pg. 48-49,

section 2.1, with table 2; pg.48, left column, paragraphs 4 and 5 with pgs 50-51, section

4.3 and 4.4) wherein: the minimum value among the distance values selected as the

reference value, and the dynamic perspective distortion of the transparent body is

evaluated based on the maximum value among the ratios of the distance values

(inherent: calculation is obtainable given the data mentioned) with respect to the

minimum value.

Claim 4. The method of Claim 1 (pg.48, left column, paragraphs 4 and 5; pg. 53, table 3, visual sensitivity), wherein:: the virtual evaluation pattern an orthogonal grid pattern (figure 6 with pg. 50, section 4.3, 2nd paragraph).

Claim 5. The method of Claim 1, (pg.48, left column, paragraphs 4 and 5; pg. 53, table 3, visual sensitivity) wherein: the transparent body is at least one selected from a glass sheet and a resinous plate (figure 6 with pg. 50, section 4.3, 1st paragraph).

Claim 6. The method of a transparent body according to Claim 1, (pg.48, left column, paragraphs 4 and 5; pg. 53, table 3, visual sensitivity) wherein: the image seen through the model of three-dimensionally curved shape of the transparent body is animation-displayed (pg.50, figure 5 with section 4.20).

Claim 7. A method for correcting three-dimensionally curved shape of a transparent body, which comprising: the steps of (pgs. 47, right column, paragraphs 1 and 2; 48, left column, paragraphs 4 and 5): step of producing a model of three-dimensionally curved shape of a transparent body having a predetermined refractive index (inherent to the science of optics: Snell's Law); determining an eye point at a side of the model of three-dimensionally curved shape and a virtual plurality of evaluation the model of three-evaluation pattern having a points at the other side dimensionally curved shape (pg. 48-49, section 2.2 and pg. 50 section 4.3 1st paragraph); observing, from the eye point, the virtual evaluation pattern through the transparent body, (pg. 48-49, section 2.2

and pg. 50 section 4.3 1st paragraph) extracting perspective evaluation points as

images evaluation points, obtained by observing through the transparent body, in a two-

dimensional picture image obtained by the observation (pg. 40 figure 4 with section 4.2),

and obtaining distance values between adjacent perspective evaluation points (pgs. 50-

51 section 4.3 with figured 6-7); the determining an optional value be a reference value,

among these distance values; evaluating the dynamic perspective distortion of the

transparent body by obtaining ratios of the distance values the reference value

(inherent: calculation is obtainable given the data mentioned), correcting the three-

dimensionally curved the transparent body according to the evaluation.

Claim 8. The of Claim 7, (pgs. 47, right column, paragraphs 1 and 2; 48, left column,

paragraphs 4 and 5) wherein: the dynamic perspective shape distortion the transparent

body evaluated based on the rate of change of the ratios of the distance values the

reference value (not addressed by examiner: see 112 1st).

Claim 9. The method of Claim 7 (pgs. 47, right column, paragraphs 1 and 2; 48, left

column, paragraphs 4 and 5), wherein: the minimum value among the distance values is

selected as the reference value, and the dynamic perspective distortion of the

transparent body is evaluated based on the maximum value among the ratios the

distance values with respect to the minimum value (inherent: calculation is obtainable

given the data mentioned).

Claim 10. The method of Claim 7, (pgs. 47, right column, paragraphs 1 and 2; 48, left column, paragraphs 4 and 5) wherein: the virtual evaluation pattern an orthogonal grid pattern (figure 6 with pg. 50, section 4.3, 2nd paragraph).

Claim 11. The method of Claim 7, (pgs. 47, right column, paragraphs 1 and 2; 48, left column, paragraphs 4 and 5) wherein: the transparent body is at least one selected from a plate glass sheet and a resinous (figure 6 with pg. 50, section 4.3, 1st paragraph).

Claim 12. The method of Claim 7, (pgs. 47, right column, paragraphs 1 and 2; 48, left column, paragraphs 4 and 5) wherein: the image seen through the model of three-dimensionally curved shape of the transparent body is animation-displayed.

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

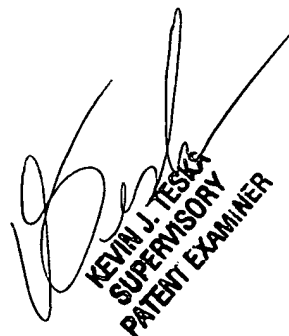than SIX MONTHS from the date of this final action.

Correspondence Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-

3715, Monday-Friday (8:00 am- 4:30 pm) or contact Supervisor Mr. Kevin Teska at

(571) 272-3716. Fax number is 571-273-3715.

Any inquiry of a general nature or relating to the status of this application should

be directed to the TC 2100 Group receptionist: 571-272-2100.

April 26, 2005

THS